

FORM PTO-1390 REV. 5-93		US DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE	ATTORNEYS DOCKET NUMBER <b>P00,1959</b>
<b>TRANSMITTAL LETTER TO THE UNITED STATES</b> <b>DESIGNATED/ELECTED OFFICE (DO/EO/US)</b> <b>CONCERNING A FILING UNDER 35 U.S.C. 371</b>			U.S. APPLICATION NO. (if known, see 37 CFR 1.5) <b>09/744617</b>
INTERNATIONAL APPLICATION NO. <b>PCT/DE99/02075</b>	INTERNATIONAL FILING DATE <b>05 JULY 1999</b>	PRIORITY DATE CLAIMED <b>31 JULY 1998</b>	
TITLE OF INVENTION <b>METHOD FOR COMMISSIONING A TELECOMMUNICATION TERMINAL DEVICE AND A CORRESPONDING TELECOMMUNICATION TERMINAL DEVICE</b>			
APPLICANT(S) FOR DO/EO/US <b>KARL FLEISCHER ET AL.</b>			
Applicant herewith submits to the United States Designated/Elected Office (DO/EO/US) the following items and other information:			
<p>1. <input checked="" type="checkbox"/> This is a <b>FIRST</b> submission of items concerning a filing under 35 U.S.C. 371.</p> <p>2. <input type="checkbox"/> This is a <b>SECOND</b> or <b>SUBSEQUENT</b> submission of items concerning a filing under 35 U.S.C. 371.</p> <p>3. <input checked="" type="checkbox"/> This express request to begin national examination procedures (35 U.S.C. 371(f)) at any time rather than delay.</p> <p>4. <input checked="" type="checkbox"/> A proper Demand for International Preliminary Examination was made by the 19th month from the earliest claimed priority date.</p> <p>5. <input checked="" type="checkbox"/> A copy of International Application as filed (35 U.S.C. 371(c)(2)) - drawings attached.</p> <p>    a. <input checked="" type="checkbox"/> is transmitted herewith (required only if not transmitted by the International Bureau).</p> <p>    b. <input type="checkbox"/> has been transmitted by the International Bureau.</p> <p>    c. <input type="checkbox"/> is not required, as the application was filed in the United States Receiving Office (RO/US)</p> <p>6. <input checked="" type="checkbox"/> A translation of the International Application into English (35 U.S.C. 371(c)(2) - drawings attached).</p> <p>7. <input checked="" type="checkbox"/> Amendments to the claims of the International Application under PCT Article 19 (35 U.S.C. 5371(c)(3))</p> <p>    a. <input type="checkbox"/> are transmitted herewith (required only if not transmitted by the International Bureau).</p> <p>    b. <input type="checkbox"/> have been transmitted by the International Bureau.</p> <p>    c. <input type="checkbox"/> have not been made; however, the time limit for making such amendments has NOT expired.</p> <p>    d. <input checked="" type="checkbox"/> have not been made and will not be made.</p> <p>8. <input checked="" type="checkbox"/> A translation of the amendments to the claims under PCT Article 19 (35 U.S.C. 371(c)(3)).</p> <p>9. <input checked="" type="checkbox"/> An oath or declaration of the inventor(s) (35 U.S.C. 371(c)(4)).</p> <p>10. <input type="checkbox"/> A translation of the annexes to the International Preliminary Examination Report under PCT Article 36 (35 U.S.C. 371(c)(5)).</p> <p>Items 11. to 16. below concern other document(s) or information included:</p> <p>11. <input checked="" type="checkbox"/> An Information Disclosure Statement under 37 C.F.R. 1.97 and 1.98; (PTO 1449, Prior Art, Search Report, 04 References).</p> <p>12. <input checked="" type="checkbox"/> An assignment document for recording. A separate cover sheet in compliance with 37 C.F.R. 3.28 and 3.31 is included. (SEE ATTACHED ENVELOPE)</p> <p>13. <input checked="" type="checkbox"/> Preliminary Amendment "A" Prior to Action and Appendix "A".</p> <p>    <input type="checkbox"/> A SECOND or SUBSEQUENT preliminary amendment.</p> <p>14. <input checked="" type="checkbox"/> A substitute specification and substitute specification mark-up.</p> <p>15. <input checked="" type="checkbox"/> A change of address letter attached to the Declaration.</p> <p>16. <input checked="" type="checkbox"/> Other items or information:</p> <p>    a. <input checked="" type="checkbox"/> Appointment of Associate Power of Attorney</p> <p>    b. <input checked="" type="checkbox"/> EXPRESS MAIL #EL655302792US dated January 26, 2001</p>			

U.S. APPLICATION NO. (if known, see 37 C.F.R. 1.5)

INTERNATIONAL APPLICATION NO.  
PCT/DE99/02075ATTORNEY'S DOCKET NUMBER  
P00,1959

09/744617

17. ☒ The following fees are submitted:**BASIC NATIONAL FEE (37 C.F.R. 1.492(a)(1)-(5):**

Search Report has been prepared by the EPO or JPO ..... \$860.00

International preliminary examination fee paid to USPTO (37 C.F.R. 1.482) .. \$690.00

No international preliminary examination fee paid to USPTO (37 C.F.R. 1.482) but  
international search fee paid to USPTO (37 C.F.R. 1.445(a)(2)) ..... \$710.00Neither international preliminary examination fee (37 C.F.R. 1.482) nor international  
search fee (37 C.F.R. 1.445(a)(2)) paid to USPTO ..... \$1000.00International preliminary examination fee paid to USPTO (37 C.F.R. 1.482) and all  
claims satisfied provisions of PCT Article 33(2)-(4) ..... \$ 100.00**ENTER APPROPRIATE BASIC FEE AMOUNT =**

CALCULATIONS

PTO USE ONLY

\$ 860.00

Surcharge of \$130.00 for furnishing the oath or declaration later than ☐ 20 ☐ 30 months  
from the earliest claimed priority date (37 C.F.R. 1.492(e)).

\$

Claims	Number Filed	Number Extra	Rate		
Total Claims	17	- 20 =	0	X \$ 18.00	\$
Independent Claims	02	- 3 =	0	X \$ 80.00	\$
Multiple Dependent Claims				\$270.00+	\$

**TOTAL OF ABOVE CALCULATIONS =**

\$ 860.00

Reduction by 1/2 for filing by small entity, if applicable. Verified Small Entity statement must also  
be filed. (Note 37 C.F.R. 1.9, 1.27, 1.28)

\$

**SUBTOTAL =**

\$ 860.00

Processing fee of \$130.00 for furnishing the English translation later than ☐ 20 ☐ 30 months  
from the earliest claimed priority date (37 CFR 1.492(f)).

\$

**TOTAL NATIONAL FEE =**

\$ 860.00

Fee for recording the enclosed assignment (37 C.F.R. 1.21(h)). The assignment must be  
accompanied by an appropriate cover sheet (37 C.F.R. 3.28, 3.31). \$40.00 per property

+

**TOTAL FEES ENCLOSED =**

\$ 860.00

Amount to be  
refunded

\$

charged \$

- a. ☒ A check in the amount of \$ 860.00 to cover the above fees is enclosed.
- b. ☐ Please charge my Deposit Account No. \_\_\_\_\_ in the amount of \$ \_\_\_\_\_ to cover the above fees.  
A duplicate copy of this sheet is enclosed.
- c. ☒ The Commissioner is hereby authorized to charge any additional fees which may be required, or credit any  
overpayment to Deposit Account No. 50-1519. A duplicate copy of this sheet is enclosed.

NOTE: Where an appropriate time limit under 37 C.F.R. 1.494 or 1.495 has not been met, a petition to revive (37 C.F.R. 1.137(a) or (b)) must be  
filed and granted to restore the application to pending status.**SEND ALL CORRESPONDENCE TO:**

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SIGNATURE

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BOX PCT  
IN THE UNITED STATES DESIGNATED/ELECTED OFFICE  
OF THE UNITED STATES PATENT AND TRADEMARK OFFICE  
UNDER THE PATENT COOPERATION TREATY--CHAPTER II

**PRELIMINARY AMENDMENT A**  
**PRIOR TO ACTION**

APPLICANT(S): KARL FLEISCHER ET AL  
ATTORNEY DOCKET NO.: P00,1959  
INTERNATIONAL APPLICATION NO: PCT/DE99/02075  
INTERNATIONAL FILING DATE: 05 JULY 1999  
INVENTION: METHOD FOR COMMISSIONING A  
TELECOMMUNICATION TERMINAL DEVICE AND A  
CORRESPONDING TELECOMMUNICATION  
TERMINAL DEVICE

Assistant Commissioner for Patents,  
Washington D.C. 20231

Sir:

Applicants herewith amend the above-referenced PCT application, and request entry of the Amendment prior to examination on the United States Examination Phase.

**IN THE CLAIMS:**

**On page 11:**

replace line 1 with --WHAT IS CLAIMED IS:--;

Please replace original claims 1-17 with the following rewritten claims 1-17, referring to the mark-ups in Appendix A.

1. (Amended) A method for commissioning a telecommunication terminal device, comprising the steps of:

providing an input mechanism for said device; and

setting operating parameters for a subsequent operation of said by an

operator via said input mechanism at said device, assisted by an automatic input assistant that automatically guides said operator through said setting of said operating parameters.

2. (Amended) The method according to claim 1, further comprising the step of: presenting values that have been already previously set for said operating parameters to be set to said operator as standard values; and

accepting or erasing, by said operator, said standard values by a corresponding actuation of said input mechanism, said erasing thus resetting said operating parameters.

3. (Amended) The method according to claim 1, further comprising the step of prompting, by said automatic input assistant, said operator to set said operating parameters with the assistance of input or selection masks that are presented on a display of said device.

4. (Amended) The method according to claim 3, further comprising the steps of: presenting, on said display, said input or selection masks of said automatic input assistant according to a predetermined hierarchical system; and

presenting, on said display, other input or selection masks, depending on said input or selection of said operator upon presentation of an input or selection mask, according to said hierarchic system.

5. (Amended) The method according to claim 4, further comprising the step of recalling, by said operator, a previously displayed input or selection mask based on a corresponding input.

6. (Amended) A telecommunication terminal device, comprising:  
an input mechanism for an operator to set operating parameters of said device;

a controller for supporting said operator in setting said operating parameters;  
and

an automatic input assistant that assists said controller in order to  
automatically guide said operator through setting said operating parameters.

7. (Amended) The telecommunication terminal device according to claim 6,  
further comprising a display for a presentation of input or selection masks controlled  
by said controller, by which said operator is prompted to set corresponding operating  
parameters by said input or selection masks.

8. (Amended) The telecommunication terminal device according to claim 7,  
wherein said controller is configured to present said input or selection masks on said  
display according to a predetermined hierarchical system, so that, given  
presentation of a specific input or selection mask and dependent on an input or  
selection of said operator via said input mechanism, a new other input or selection  
mask predetermined by said hierarchical system is presented on said display.

9. (Amended) The telecommunication terminal device according to claim 7,  
wherein said controller is configured such that an input or selection mask that was  
already previously displayed is redisplayed on said display by said as a result of a  
corresponding input of said operator via said input mechanism.

10. (Amended) The telecommunication terminal device according to claim 7,  
wherein said controller is configured such that it recognizes a waiting call for said  
device and presents an input or selection mask on said display with whose  
assistance said operator can select a continuation of setting said operating  
parameters or an acceptance of said call via said input mechanism, said controller  
producing an abort of said setting of said operating parameters and of said input  
assistant given an input of said operator corresponding to call acceptance.

11. (Amended) The telecommunication terminal device according to claim 7, wherein said controller is configured to recognize a call waiting for said device and automatically produces an abort of said setting of said operating parameters and of said input assistant in order to enable an acceptance of said call, said settings of operating parameters that have already been actuated by said operator remaining stored.

12. (Amended) The telecommunication terminal device according to claim 7, wherein said controller is configured such that, given presentation of an input or selection mask on said display, said controller displays values for corresponding operating parameters that were already previously set and offers these to said operator for acceptance.

13. (Amended) The telecommunication terminal device according to claim 6, wherein said input mechanism comprises a keyboard of said telecommunication terminal device.

14. (Amended) The telecommunication terminal device according to claim 6, wherein said controller is configured such that, following a power-free condition of said device, said controller recognizes a connection or a reconnection of said device to a power supply and starts said automatic input assistant for setting said operating parameters.

15. (Amended) The telecommunication terminal device according to claim 14, wherein said controller is configured such that, when the automatic input assistant is started, it presents an input or selection mask on said display with whose assistance said operator can confirm a continuation of setting said operating parameters or abort said setting of said operating parameters.

16. (Amended) The telecommunication terminal device according to claim 6,

wherein said controller is configured so that a language of the input assistant, a current date and a current time of day, a type of connection of said device to a telecommunication network, an exchange code or a factor for charge calculation can be set as operating parameters with the assistance of said automatic input assistant.


17. (Amended) The telecommunication terminal device according to claim 16, wherein said telecommunication terminal device is a digital terminal device by which said controller is constructed such that said controller permits multiple telephone numbers of said telecommunication terminal device or suppression of a transmission of a telephone number of its own telecommunication terminal device to another party can be set with the assistance of said automatic input assistant.

#### REMARKS

The present Amendment revises the specification and claims to conform to United States patent practice, before examination of the present PCT application in the United States National Examination Phase. Pursuant to 37 CFR 1.125 (b), applicants have concurrently submitted a substitute specification, excluding the claims, and provided a marked-up copy. All of the changes are editorial and applicant believes no new matter is added thereby. The amendment, addition, and/or cancellation of claims is not intended to be a surrender of any of the subject matter of those claims.

Early examination on the merits is respectfully requested.

Submitted by,

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Appendix A  
Mark Ups for Claim Amendments

This redlined draft, generated by CompareRite (TM) - The Instant Redliner, shows the differences between -  
original document : Q:\DOCUMENTS\YEAR 2000\P001959-FLEISCHER-COMMISSIONING TELECOM DEVICE\ORIGINAL CLAIMS.DOC  
and revised document: Q:\DOCUMENTS\YEAR 2000\P001959-FLEISCHER-COMMISSIONING TELECOM DEVICE\AMENDED CLAIMS.DOC

CompareRite found 149 change(s) in the text

Deletions appear as Overstrike text surrounded by []  
Additions appear as Bold-Underline text

1. ~~[Method]~~**(Amended) A method** for commissioning a telecommunication terminal device, ~~[whereby]~~ **comprising the steps of:**  
**providing an input mechanism for said device; and**  
**setting** operating parameters for a subsequent operation of ~~[the telecommunication terminal device can be set]~~ **said** by an operator via ~~[input means (2-9, 13) at the telecommunication terminal]~~ **said input mechanism at said** device, ~~[characterized in that the setting of the operating parameters ensues]~~ assisted by an automatic input assistant that automatically guides ~~[the]~~ **said** operator through ~~[the]~~ **said** setting of ~~[the]~~ **said** operating parameters.
2. ~~[Method]~~**(Amended) The method** according to claim 1, ~~[characterized in that]~~ **further comprising the step of:**  
**presenting** values that have been already previously set for ~~[the]~~ **said** operating parameters to be set ~~[are presented to the]~~ **to said** operator as standard values~~;~~**; and**  
**accepting or erasing, by** said operator ~~[being able to accept the]~~, **said** standard values by a corresponding actuation of ~~[the input means (2-9, 13) or, on the other hand, being able to erase them and reset the]~~ **said input mechanism, said erasing thus resetting said** operating parameters.



3. ~~[Method]~~**(Amended) The method** according to claim 1 ~~[or 2, characterized in that the ]~~, **further comprising the step of prompting, by said** automatic input assistant ~~[prompts the operator]~~, **said operator** to set ~~[the]~~ **said** operating parameters with the assistance of input or selection masks that are presented on a display ~~[(1) of the telecommunication terminal]~~ **of said** device.

4. ~~[Method]~~**(Amended) The method** according to claim 3, ~~[characterized in that the ]~~**further comprising the steps of:**

**presenting, on said display, said** input or selection masks of ~~[the]~~ **said** automatic input assistant ~~[are presented on the display (1) of the telecommunication terminal device]~~ according to a predetermined ~~[hierarchical system, so that, dependent on the]~~ **hierarchical system; and**

**presenting, on said display, other** input or selection ~~[of the]~~ **masks,**  
**depending on said input or selection of said** operator upon presentation of an input or selection mask, ~~[a specific, other input or selection mask is presented on the display (1)]~~ according to ~~[the]~~ **said** hierarchical system.

5. ~~[Method]~~**(Amended) The method** according to claim 4, ~~[characterized in that the ]~~**further comprising the step of recalling, by said** operator ~~[can recall]~~, a previously displayed input or selection mask **based** on ~~[the basis of]~~ a corresponding input.

6. ~~[Telecommunication]~~**(Amended) A telecommunication** terminal device, comprising:

**an** input ~~[means (2-9, 13)]~~ **mechanism** for an operator to set operating parameters of ~~[the telecommunication terminal device, characterized by control means (10, 15)]~~ **said device;**

**a controller** for supporting ~~[the]~~ **said** operator in ~~[the]~~ setting ~~[of the]~~ **said** operating parameters ~~[with the assistance of]; and~~

an automatic input assistant that assists said controller in order to automatically guide [the] said operator through [the] setting [of the] said operating parameters.

7. ~~[(Telecommunication)]~~**(Amended) The telecommunication** terminal device according to claim 6, ~~[characterized in that the telecommunication terminal device comprises]~~ **further comprising** a display [(1)] for a presentation of input or selection masks controlled by ~~[the control means (10, 15), whereby the]~~ **said controller, by which said** operator is prompted to set corresponding operating parameters by ~~[the]~~ **said** input or selection masks.

8. ~~[(Telecommunication)]~~**(Amended) The telecommunication** terminal device according to claim 7, ~~[characterized in that the control means (10, 15) are fashioned such that they]~~ **wherein said controller is configured to** present [the] **said** input or selection masks on [the] **said** display [(1)] according to a predetermined ~~[hierarchy]~~ **hierarchical** system, so that, given presentation of a specific input or selection mask and dependent on an input or selection of [the] **said** operator via [the] **said** input ~~[means (2-9),]~~ **mechanism**, a new **other** input or selection mask predetermined by ~~[the hierarchy]~~ **said hierarchical** system is presented on [the display (1),] **said display.**

~~[9-Telecommunication]~~ **9. (Amended) The telecommunication** terminal device according to claim 7 ~~[or 8, characterized in that the control means (10, 15) are fashioned],~~ **wherein said controller is configured** such that an input or selection mask that was already previously displayed is redisplayed on [the] **said** display [(1) ~~by the control means (10, 15)]~~ **by said** as a result of a corresponding input of [the] **said** operator via ~~[the input means (2-9),]~~ **said input mechanism.**

~~[10-Telecommunication]~~ **10. (Amended) The telecommunication** terminal device according to ~~[one of the claims 7-9, characterized in that the control means~~

(10,15) are fashioned] **claim 7, wherein said controller is configured** such that [they recognize] **it recognizes** a waiting call for [the telecommunication terminal] **said** device and [present] **presents** an input or selection mask on [the] **said** display [(4) in this case] with whose assistance [the] **said** operator can select [the] **a**

5 continuation of [the] setting [of the] **said** operating parameters or, on the other hand, the **an** acceptance of [the] **said** call via [the input means (2-9)], whereby the control means (10,15) produce the **said input mechanism, said controller producing an** abort of [the] **said** setting [procedure] **of said operating parameters** and of [the] **said** input assistant given an input of [the] **said** operator corresponding

10 to [the] call acceptance.

11. [Telecommunication](**Amended**) **The telecommunication** terminal device according to [one of the claims 7-9, characterized in that the control means (10,15) are fashioned such that they] **claim 7, wherein said controller is configured to**

15 recognize a call waiting for [the telecommunication terminal] **said** device and automatically [produce the] **produces an** abort of [the] **said** setting [procedure] **of said operating parameters** and of [the] **said** input assistant in [this case in] order to enable [the] **an** acceptance of [the] **said** call, [whereby] **said** settings of operating parameters that have already been actuated by [the] **said** operator [remain]

20 **remaining** stored.

12. [Telecommunication](**Amended**) **The telecommunication** terminal device according to [one of the claims 7-11, characterized in that the control means (10,15) are fashioned] **claim 7, wherein said controller is configured** such that, given

25 presentation of an input or selection mask on [the display (1) of the telecommunication terminal device, they display] **said display, said controller displays** values for [the] corresponding operating parameters that were already previously set and [offer] **offers** these to [the] **said** operator for acceptance.

13. ~~[Telecommunication]~~**(Amended) The telecommunication** terminal device according to ~~[one of the claims 6-12, characterized in that the input means (2-9, 13) comprise]~~ **claim 6, wherein said input mechanism comprises** a keyboard ~~[(13)]~~ of ~~[the]~~ **said** telecommunication terminal device.

14. ~~[Telecommunication]~~**(Amended) The telecommunication** terminal device according to ~~[one of the claims 6-13, characterized in that the control means (10, 15) are fashioned]~~ **claim 6, wherein said controller is configured** such that, following a power-free condition of ~~[the telecommunication terminal]~~ **said** device, ~~[the]~~ **recognize the** **said controller recognizes a** connection or ~~[, respectively,]~~ **a** reconnection of ~~[the telecommunication terminal]~~ **said** device to a power supply and ~~[, in this case, start the]~~ **starts said** automatic input assistant for setting ~~[the]~~ **said** operating parameters.

15. ~~[Telecommunication]~~**(Amended) The telecommunication** terminal device according to claim 14, ~~[characterized in that the control means (10, 15) are fashioned]~~ **wherein said controller is configured** such that, when the automatic input assistant is started, ~~[they present]~~ **it presents** an input or selection mask on ~~[the]~~ **said** display ~~[(1) of the telecommunication terminal device]~~ with whose assistance ~~[the]~~ **said** operator can confirm ~~[the]~~ **a** continuation of ~~[the]~~ setting ~~[of the]~~ **said** operating parameters or ~~[, on the other hand,]~~ about ~~[the]~~ **said** setting of ~~[the]~~ **said** operating parameters.

16. ~~[Telecommunication]~~**(Amended) The telecommunication** terminal device according to ~~[one of the claims 6-15, characterized in that the control means (10, 15) are fashioned such that the]~~ **claim 6, wherein said controller is configured so that a** language of the input assistant, ~~[the]~~ **a** current date and ~~[the]~~ **a** current time of day, ~~[the]~~ **a** type of connection of ~~[the telecommunication terminal]~~ **said** device to a telecommunication network, ~~[the]~~ **an** exchange code ~~[and/or]~~ **or** a factor for ~~[the]~~

charge calculation can be set as operating parameters with the assistance of ~~the~~  
said automatic input assistant.

17. ~~Telecommunication~~~~(Amended)~~ The telecommunication terminal device  
5 according to claim 16, ~~characterized in that the~~ wherein said telecommunication  
terminal device is a digital terminal device, ~~whereby the control means (10, 15) are~~  
~~fashioned~~ by which said controller is constructed such that said controller  
permits multiple telephone numbers of ~~the~~ said telecommunication terminal device  
~~and/or the~~ or suppression of ~~the~~ a transmission of ~~the~~ a telephone number of its  
10 own telecommunication terminal device to another party can be set with the  
assistance of ~~the~~ said automatic input assistant.

## SPECIFICATION

## TITLE

METHOD FOR COMMISSIONING A TELECOMMUNICATION TERMINAL DEVICE  
AND A CORRESPONDING TELECOMMUNICATION TERMINAL DEVICE

5

## BACKGROUND OF THE INVENTION

## Field of the Invention

1 The present invention is directed to a method for commissioning a telecommunication terminal device such as a traditional telephone, a mobile  
10 telephone or a cordless telephone, as well as to a telecommunication terminal device that, in particular, can also be utilized in telephone private branch exchanges.

## Description of the Related Art

2 It is known that a user can set certain operating parameters at his telephone set that subsequently define the operation of the telephone set. The setting of the  
15 operating parameters is accomplished by inputting corresponding codes that are to be input via the keyboard of the telephone set. Furthermore, the setting of the codes is displayed on the display (if present) of the telephone set. These operating parameters include, e.g., the ringing frequency, the ringing volume or the exchange  
20 code (AKZ) to be pre-selected for external calls given operation at a telephone private branch exchange, etc., which can be set or programmed. Such a programming of the telephone sets, however, is relatively complicated since a corresponding code must be input for each setting of an operating parameter, but the user must usually look this up in the handbook of the telephone set since he  
25 cannot remember the large number of different setting codes.

3 In order to facilitate the commissioning of the telephone set for the final consumer, the most important operating parameters are normally pre-programmed by the manufacturer with the assistance of pre-set standard values (default values) that cover a majority of the employment areas. Nonetheless, applications often  
30 occur that are not covered by these pre-settings, so that the user must again carry out the previously mentioned, complicated reprogramming of the telephone set.

## SUMMARY OF THE INVENTION

4 The present invention is therefore based on the object of providing a method for the commissioning of a telecommunication terminal device as well as a  
5 corresponding telecommunication terminal device with which the commissioning of the telecommunication terminal device can be made easier for the final consumer or final user (user).

5 This object is achieved by a method for commissioning a telecommunication terminal device, comprising the steps of providing an input mechanism for the  
10 device; and setting operating parameters for a subsequent operation of the by an operator via the input mechanism at the device, assisted by an automatic input assistant that automatically guides the operator through the setting of the operating parameters. Advantageous developments are described below.

6 This object is also achieved by a telecommunication terminal device,  
15 comprising an input mechanism for an operator to set operating parameters of the device; a controller for supporting the operator in setting the operating parameters; and an automatic input assistant that assists the controller in order to automatically guide the operator through setting the operating parameters.

7 According to the present invention, an automatic input prompting is provided  
20 that guides the user through the most important operating parameter settings and thus supports the programming of the operating parameters by the user. This automatic input prompting can particularly be realized in the form of a software assistant in the telecommunication terminal device that is automatically activated as soon as the telecommunication terminal device is connected to the power supply. It  
25 can also be provided that this software assistant is automatically re-activated after a power outage in order to enable resetting the operating parameters by a user.

8 The automatic input prompting proposed according to the present invention or the previously mentioned software assistant is particularly realized such that various  
30 input or selection masks are automatically displayed on the display of the telecommunication terminal device according to a predetermined hierarchical system, these prompting the user to set corresponding operating parameters. The

setting of the respective operating parameters can occur by selecting a predetermined option or by inputting a corresponding value. After an input or selection by the user, the automatic input prompting automatically changes according to the previously mentioned hierarchical system to a new input or selection mask in order to enable the setting of a new operating parameter. An operator input then advantageously takes place via the keyboard of the telecommunication terminal device. When earlier settings of the corresponding operating parameters are already present when the automatic prompting or the software assistant is called, these are displayed in the corresponding input or selection masks or display screens as predetermined, standard or default values, so that the operator can simply accept these values, as warranted.

9 When a call arrives at the corresponding telecommunication terminal device during the previously mentioned, automatic setting procedure, i.e., after activation of the automatic input prompting, the operator is given an opportunity with a corresponding display screen at the respective telecommunication terminal device to: 1) accept the call or, 2) continue the setting procedure. On the basis of a corresponding input, usually by actuating a corresponding key (soft key), the operator can accept the call, in which case the setting procedure is aborted and the software assistant or the automatic input prompting is placed into a quiescent condition. Alternatively, incoming calls may always be given priority by default, so that the setting procedure is automatically aborted upon arrival of a call in order to be able to accept the incoming call. Advantageously, the settings that have already been made remain stored in this case.

10 The present invention can be applied to various types of telecommunication terminal devices. In particular, the invention can be applied both to terminal devices directly connected to a main telephone terminal as well as to terminal devices connected to a telephone private branch exchange. Furthermore, the present invention may be used both in analog or digital stationary telephone sets as well as in mobile telephones such as cordless telephones.



## BRIEF DESCRIPTION OF THE DRAWINGS

11 The present invention is explained in greater detail below on the basis of preferred exemplary embodiments with reference to the attached drawings.

Figures 1A and 1B are exemplary screen displays showing the execution of the setting of operating parameters according to the present invention for an analog telephone terminal device on the basis of various display screens.

Figures 2A-2D are exemplary screen displays showing the execution of the setting of operating parameters according to the present invention for a digital telephone terminal device on the basis of various display screens.

Figure 3 is a block circuit diagram showing an inventive telecommunication terminal device.

## DESCRIPTION OF THE PREFERRED EMBODIMENTS

12 First, the structure of an inventive telecommunication terminal device is explained on the basis of Figure 3 with reference to the example of a stationary terminal device. The central component part is a central control unit 10 that controls the function of the telecommunication terminal device such as the reception or transmission of communication information via a connected telephone network (not shown) and, for this purpose, is also coupled to the loudspeaker 11 and the microphone 12 of the telephone. However, the central control unit 10 also particularly serves for the control of the input or setting of operating parameters by an operator. This ensues with the assistance of an input assistant whose functional scope such as the nature of the operating parameters to be set or the sequence of the setting of the individual operating parameters is defined by the software 15 of the central control unit 10.

13 After activation of this input assistant, various input or selection masks, with whose assistance the operator can particularly actuate corresponding inputs or settings via the keyboard 13 of the terminal device, are displayed on the display 1 of the terminal device depending on the control software 15. Instead of the keyboard

15, and as is explained later, the actuation of "soft keys" is also possible, for example, as an input medium for the setting/input of operating parameters. Values that have been input or set for the individual operating parameters are deposited in a corresponding memory 14 (e.g., an EEPROM) in order, on the one hand, to access  
5 these values later during operation of the telecommunication terminal device or, on the other hand, to be able to store new values for the operating parameters.

14 Figure 1A shows the content 100 of a display screen 1 of the inventive analog telephone terminal device after activation of the software or input assistant.

15 The input assistant is automatically activated when the telephone terminal device is connected to a power supply or is resupplied with power after a power outage. I.e., an activation of the input assistant can only be achieved via a power supply mains outage or by unplugging and replugging the power plug of the telephone terminal device. Advantageously, the user is not allowed to plug in a  
10 telephone line during the commissioning of the telephone terminal device but only the power plug, so that incoming calls can have priority over initial device settings. Only after running through the setting procedure, for example, can it be pointed out to the user in the instruction manual that the telephone line should be plugged in.

16 With the display screen 100 shown in Figure 1A, the telephone terminal device first asks the user or the operator whether the input assistant should in fact  
20 be started for setting various operating parameters of the telephone terminal device.

The input possibilities are presented to the user in display fields 2 or 3, so that the setting procedure with support by the input assistant is started by actuating a key ("YES" key) allocated to the field 2, whereas the setting procedure is aborted and switched into a quiescent condition by actuating a key ("NO" key) allocated to the  
25 field 3.

17 After actuation of the "YES" key, the selection mask or selection presentation 200 shown in Figure 1A is displayed on the display of the telephone terminal device.

With the assistance of the selection presentation 200, the user can select the language for the following installation or setting procedure. With the assistance of a  
30 key allocated to the display field 5 shown in Figure 1A, the bar shown black in the display 200 can be displaced up, whereas this bar can be displaced down with the

assistance of a key allocated to the display field 6. The language selected at any particular time is shown over the background of the black bar. Finally, the user can confirm the selection with the assistance of a key ("OK" key) allocated to the field 4.

18 After actuating the "OK" key, the message 300 shown in Figure 1A is output  
5 on the display of the telephone terminal device, this prompting the user to set the current date and the current time of day. By actuating the "OK" key, an input mask 301 is displayed on the display in which the user can input the date and the time of day with the assistance of the number keys of the telephone terminal device at which input takes place with the assistance of a cursor that indicates the momentary  
10 input position in the input mask. This cursor can be shifted toward the left with the assistance of a key corresponding to the field 7 shown in Figure 1A and can be shifted toward the right with the assistance of a key corresponding to the field 8.

The field 9 likewise shown in the display 301 has a backspace function key allocated to it, the cursor being shifted one field toward the left when this is actuated and the momentary input field being deleted at the same time. The input of the data and the time of day can again be confirmed by the user with the assistance of the "OK" key.

19 Subsequently, the software assistant automatically displays a new message 400 on the display of the telephone terminal device with which the user is informed about the setting of the type of connection of the telephone terminal device that is to  
20 be actuated next. By actuating the "OK" key, the selection mask 401 shown in Figure 1A is displayed on the display of the telephone terminal device, at which a black bar can again be displaced up or down for selecting between the given options. When the user has selected "extension" as the connection type and subsequently actuates the "OK" key of the telephone terminal device, the

25 performance feature "automatic attenuation equalization" (ADA) is preferably activated and a change to a new message 402 on the display of the telephone terminal device ensues via which the user is informed of the input of the exchange code to be carried out next, i.e., the number to be dialed for external calls in order to access the exchange line. The user can select whether he wishes to input this  
30 exchange code (AKZ) or not. When the user has actuated the key of the telephone terminal device corresponding to the "YES" field, an input mask 403 is displayed on

the display of the telephone terminal device into which the user can input a three digit exchange code via the number keys of the telephone terminal device.

20 When, for the display of the selection mask 401, the user has selected the option "main line" (in this case, the feature "ADA" is deactivated) or has actuated the "OK" key for a display of the input mask 403 or has actuated the key corresponding to the option "NO" for a display of the selection window 402, then a further selection option 500 is displayed on the display of the telephone terminal device which asks whether the user wishes to input a fee or payment factor that represents the basis for the calculation of charges for the calls conducted proceeding from the corresponding telephone terminal device. After actuation of the key allocated to the option "YES", a message 501 is displayed that informs the user about the input of the display format for the payment factor that is to be actuated next. After actuation of the "OK" key, a new selection mask 502 is finally displayed, by which the user can select the display format for the payment factor by moving the black bar shown in the display 502 up or down. The selection can in turn be confirmed by actuating the "OK" key, producing an input mask 503 that is subsequently displayed on the display of the telephone terminal device at which the user can input the desired payment factor for the charge calculation with the number keys of the telephone terminal device. A currency input does not thereby occur. When a payment factor was input, the payment display is automatically activated in the telephone terminal device.

21 The input mask 503 is in turn exited by actuating the "OK" key. Figures 1A/1B assume that the installation, i.e., the setting of the operating parameters of the telephone terminal device, has ended, and a corresponding message 600 is displayed on the display of the telephone terminal device. For confirming the end of the installation event, a specific sound sequence or melody can also be optionally output via the loudspeaker of the telephone terminal device or a specific animation can be presented on the display.

22 Of course, the present invention is not limited to the setting possibilities shown in Figure 1A and Figure 1B; rather, additional or other operating parameters of the telephone terminal device can also be set, such as the ringing volume, the ringing sequence, etc., supported by the automatic input or software assistant. This

is essentially dependent only on the control of the software of the telephone terminal device.

23 It can be seen from Figures 1A and 1B that the sequencing of the automatic input control takes place according to a pre-programmed and predetermined hierarchical system. By actuating a corresponding key of the telephone terminal device (soft key actuation), the display screen of the telephone terminal device changes and a new selection or input mask is displayed until the installation is over.

These transitions are shown in Figure 1A and Figure 1B with the assistance of solid-line arrows. Additionally, however, there is also the possibility of returning from a display screen to a preceding or hierarchically higher-ranking display screen in order, for example, to correct incorrect inputs. These returns are shown with broken-line arrows in Figures 1A and 1B and are produced by actuation of an ESC key (ESC hard key) of the telephone terminal device. For example, a return can be made from the display screen 500 to the display screen 400 in this way.

24 The automatic setting procedure, i.e., the automatic software or the input assistant, is always activated when the telephone terminal device is connected to the power supply or is resupplied with power after a power outage. Accordingly, the setting procedure and, thus, the input assistant is automatically exited when no input has been actuated for a longer time, for example, 2 minutes. Settings that have already been actuated remain stored and are thus preserved. Over and above this, there is also the possibility of exiting the input procedure by: 1) picking up the receiver and in turn hanging up the receiver, or 2) by correspondingly turning the loudspeaker of the telephone terminal device on and then off, which corresponds to an emergency reset.

25 As a rule, a telephone terminal device is already delivered with predetermined standard or default settings of the individual operating parameters. These default settings are preferably accepted by the input assistant in the presentation of a corresponding display screen and offered to the user for confirmation, so that no new input by the user may be required when the predetermined default settings are accepted. The same is also true of operating parameters that had already been set by the user earlier. When the user does not agree with these earlier settings of the

operating parameters, a resetting or re-selection can be undertaken with a corresponding input via the keyboard of the telephone terminal device, as described above.

26 During the activation of the input assistant, i.e., during the running of the setting procedure presented in Figures 1A and 1B, a call may arrive at the corresponding telephone terminal device. In this case, a corresponding display screen is automatically displayed on the display of the telephone terminal device that informs the user that a call is waiting and indicates the possibility of accepting the call or continuing with the setting procedure (for example, with soft keys "accept" and "continue"). When the user decides to accept the call, i.e., when the user actuates the corresponding accept key, the setting procedure and the automatic input assistant is aborted and the user can accept the call. When, in contrast, the user has decided to continue the setting procedure, the display screen that informed the user of the waiting call is erased and a return is made to the preceding display screen.

27 Alternatively, incoming calls may always be given priority, so that the setting procedure is automatically aborted upon arrival of a call in order to be able to accept the incoming call. Advantageously, the settings that have already been actuated remain stored in this case.

28 Figures 2A-2D show a setting procedure for an ISDN telephone terminal device corresponding to the setting procedure shown in Figures 1A/1B. The display screens 100-403 shown in Figure 2A correspond to the display screens 100-403 shown in Figure 1A, so that the above explanations are referenced here.

29 In contrast to analog telephone terminal devices, however, there is the possibility for ISDN telephone terminal devices of allocating a plurality of telephone numbers to an ISDN terminal. After the display screens 401-403, a new selection mask 500 is therefore displayed by which the user is asked whether the input of such multiple telephone numbers is desired. Upon actuation of the "YES" key, the user can subsequently input a total of three such multiple telephone numbers in corresponding input masks 501-503 with the number keys of the telephone terminal device. After actuation of the "OK" key when the input mask 503 is displayed or

after selection of the "NO" option when the selection mask 500 is displayed, the setting procedure for the payment factor that was already described on the basis of Figure 1B follows, so that the above explanations about the display screens 500-503 of Figure 1B can be referenced.

30 When, upon presentation of the display screen 600, the user has selected the "NO" option or input the desired payment factor into the input mask 603 and subsequently actuated the "OK" key, a further selection mask 700 (see Figure 2D) is displayed on the display of the telephone terminal device, with whose assistance the user can activate or deactivate what is referred to as the CLIR performance feature (calling line identification restriction) of the ISDN telephone terminal device in order to thus suppress the transmission of the user's own telephone number to the other party for an activation of the CLIR performance feature. Upon actuation of the "YES" key, accordingly, the CLIR performance feature is activated, whereas, for an actuation of the "NO" key, the setting procedure is immediately ended and the final message shown in Figure 2D is displayed on the display of the telephone terminal device. The above comments about the display screen 600 shown in Figure 1B in turn apply to the display screen 800. The setting procedure shown in Figures 2A-2D is also not all-inclusive but only to be understood as being by way of example; additional or alternative operating parameters such as, for example the activation of a calling list or the activation of a call redirection, etc., can also be set.

31 The above-described method and device are illustrative of the principles of the present invention. Numerous modifications and adaptations thereof will be readily apparent to those skilled in this art without departing from the spirit and scope of the present invention.

## ABSTRACT

32 A method is provided for commissioning a telecommunication terminal device as well as a corresponding telecommunication terminal device, by which a plurality of operating parameters of the telecommunication terminal device for commissioning  
5 can be set by an operator via the keyboard (2-9) of the telecommunication terminal device. The setting of the operating parameters is supported by an automatic input assistant that prompts the operator to set corresponding operating parameters in the form of a plurality of input or selection masks and thus guides the operator through the setting procedure.



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**METHOD FOR COMMISSIONING A TELECOMMUNICATION  
TERMINAL DEVICE AND A CORRESPONDING TELECOMMUNICATION  
TERMINAL DEVICE**

The present invention is directed to a method for commissioning a  
5 telecommunication terminal device such as, for example, a traditional telephone, a  
mobile telephone or a cordless telephone, as well as to a telecommunication terminal  
device that, in particular, can be utilized in telephone private branch exchanges as  
well.

As known, a user can set certain operating parameters at his telephone set  
10 that subsequently define the operation of the telephone set. the setting of the  
operating parameters thereby ensues by inputting corresponding codes that are to be  
input via the keyboard of the telephone set. The setting of the codes, further, is  
displayed on the display of the telephone set insofar as a corresponding display is  
present. For example, the ringing frequency, the ringing volume or the exchange code  
15 (AKZ) to be pre-selected for external calls given operation at a telephone private  
branch exchange, etc., can thus be set or programmed as operating parameters. Such a  
programming of the telephone sets, however, is relatively complicated since a  
corresponding code must be input for each setting of an operating parameter, but the  
user must usually look this up in the handbook of the telephone set since he cannot  
20 remember the multitude of different setting codes.

In order to facilitate the commissioning of the telephone set for the final  
consumer, the most important operating parameters are normally pre-programmed by  
the manufacturer with the assistance of pre-set standard values (default values),  
whereby these pre-settings cover a majority of the employment areas. Nonetheless,  
25 applications often occur that are not covered by these pre-settings, so that the user  
must again carry out the aforementioned, complicated reprogramming of the  
telephone set.

The present invention is therefore based on the object of proposing a  
method for the commissioning of a telecommunication terminal device as well as a  
30 corresponding telecommunication terminal device with which the commissioning of

the telecommunication terminal device can be made easier for the final consumer or, respectively, user.

This object is achieved by the present invention with a method having the features of claim 1 or, respectively, a telecommunication terminal device having the features of claim 6. The subclaims respectively describe preferred and advantageous embodiments of the present invention that in turn contribute to an optimally simple commissioning of the telecommunication terminal device by the final consumer in that the setting of the various operating parameters is facilitated in a user-friendly way.

According to the present invention, an automatic input prompting is provided that guides the user or final consumer through the most important operating parameter settings and thus supports the programming of the operating parameters by the user. This automatic input prompting can, in particular, be realized in the form of a software assistant in the telecommunication terminal device that is automatically activated as soon as the telecommunication terminal device is connected to the power supply. It can also be provided that this software assistant is automatically re-activated after a power outage in order to thus enable a resetting of the operating parameters by a user.

The automatic input prompting proposed according to the present invention or, respectively, the aforementioned software assistant is particularly realized such that various input or selection masks are automatically displayed on the display of the telecommunication terminal device according to a predetermined hierarchic system, these prompting the user to set corresponding operating parameters. The setting of the respective operating parameters can occur by selecting a predetermined option or by inputting a corresponding value. After an input or selection by the user, the automatic input prompting automatically changes according to the aforementioned hierarchic system to a new input or selection mask in order to enable the setting of a new operating parameter. An input of the operator thereby advantageously ensues via the keyboard of the telecommunication terminal device. When earlier settings of the corresponding operating parameters are already present when the automatic prompting or, respectively, the software assistant is called, these

are displayed in the corresponding input or selection masks or, respectively, display screens as predetermined, standard or default values, so that the operator can simply accept these values, as warranted.

When a call arrives at the corresponding telecommunication terminal device during the aforementioned, automatic setting procedure, i.e. after activation of the automatic input prompting, the operator is given an opportunity with a corresponding display screen at the respective telecommunication terminal device to accept the call or, on the other hand, continue the setting procedure. On the basis of a corresponding input, usually by actuating a corresponding key (soft key), the operator can accept the call, whereby the setting procedure is aborted in this case and the software assistant or, respectively, the automatic input prompting is placed into a quiescent condition. Alternatively, it can be provided to always give incoming calls priority, so that the setting procedure is automatically aborted upon arrival of a call in order to be able to accept the incoming call. Advantageously, the settings that have already been made remain stored in this case.

The present invention can be applied to various types of telecommunication terminal device. In particular, the invention can be applied both to terminal devices directly connected to a main telephone terminal as well as to terminal devices connected to a telephone private branch exchange. Further, use of the present invention comes into consideration both in analog or digital, stationary telephone sets as well as in mobile telephones such as, for example, cordless telephones.

The present invention is explained in greater detail below on the basis of preferred exemplary embodiments with reference to the attached drawing. By way of example, Figures 1a and 1b show the execution of the setting of operating parameters according to the present invention for an analog telephone terminal device on the basis of various display screens.

By way of example, Figures 2a-2c show the execution of the setting of operating parameters according to the present invention for a digital telephone terminal device on the basis of various display screens.

Figure 3 shows a simplified block circuit diagram of an inventive telecommunication terminal device.

First, the structure of an inventive telecommunication terminal device shall be explained on the basis of Figure 3 with reference to the example of a stationary terminal device. The central component part is a central control unit 10 that controls the function of the telecommunication terminal device such as, for example, the reception or, respectively, the transmission of communication information via a telephone network (not shown) connected thereto and, for this purpose, is also coupled to the loudspeaker 11 and the microphone 12 of the telephone. In particular, however, the central control unit 10 also serves for the control of the input or, respectively, setting of operating parameters by an operator. This ensues with the assistance of an input assistant whose functional scope such as, for example, the nature of the operating parameters to be set or the sequence of the setting of the individual operating parameters is defined by the software 15 of the central control unit 10. After activation of this input assistant, various input or selection masks, with whose assistance the operator can, in particular, actuate corresponding inputs or settings via the keyboard 13 of the terminal device, are displayed on the display 1 of the terminal device dependent on the control software 15. Instead of the keyboard 15, and as shall be explained later, the actuation of what are referred to as soft keys is also possible, for example, as input medium for the setting/input of operating parameters. Values that have been input or set for the individual operating parameters are deposited in a corresponding memory 14, for example in an EEPROM, in order, on the one hand, to access these later during operation of the telecommunication terminal device or, on the other hand, to be able to store new values for the operating parameters.

Figure 1a shows the content 100 of a display screen 1 of the inventive analog telephone terminal device after activation of the software or, respectively, input assistant.

The input assistant is automatically activated when the telephone terminal device is connected to a power supply or is resupplied with power after a power outage. I.e., an activation of the input assistant can only be achieved via a mains outage or by unplugging and replugging the power plug of the telephone terminal device. Advantageously, the user is not allowed to plug in a telephone line during the

commissioning of the telephone terminal device but only the power plug, so that incoming calls can have priority over initial device settings. Only after running through the setting procedure, for example, can it be pointed out to the user in the instruction manual that the telephone line should be plugged in.

5               With the display screen 100 shown in Figure 1a, the telephone terminal device first asks the user or, respectively, the operator whether the input assistant should in fact be started for setting various operating parameters of the telephone terminal device. The input possibilities are presented to the user in display fields 2 or, respectively, 3, so that the setting procedure with support by the input assistant is  
10           started by actuating a key ("YES" key) allocated to the field 2, whereas the setting procedure is aborted and switched into a quiescent condition by actuating a key ("NO" key) allocated to the field 3.

              After actuation of the "YES" key, the selection mask or, respectively, selection presentation 200 shown in Figure 1a is displayed on the display of the  
15           telephone terminal device. With the assistance of the selection presentation 200, the user can select the language for the following installation or, respectively, setting procedure. With the assistance of a key allocated to the display field 5 shown in Figure 1a, the bar shown black in the display 200 can be displaced up, whereas this bar can be displaced down with the assistance of a key allocated to the display field 6.  
20           The language selected at the moment is shown over the background of the black bar. Finally, the user can confirm the selection with the assistance of a key ("OK" key) allocated to the field 4.

              After actuating the "OK" key, the message 300 shown in Figure 1a is output on the display of the telephone terminal device, this prompting the user to set  
25           the current date and the current time of day. By actuating the "OK" key, an input mask 301 is displayed on the display wherein the user can input the date and the time of day with the assistance of the number keys of the telephone terminal device. The input thereby ensues with the assistance of a cursor that indicates the momentary input position in the input mask. This cursor can be shifted toward the left with the  
30           assistance of a key corresponding to the field 7 shown in Figure 1a and can be shifted toward the right with the assistance of a key corresponding to the field 8. The field 9

likewise shown in the display 301 has a backspace function key allocated to it, the cursor being shifted one field toward the left when this is actuated and the momentary input field being deleted at the same time. The input of the data and the time of day can again be confirmed by the user with the assistance of the "OK" key.

5               Subsequently, the software assistant automatically displays a new message 400 on the display of the telephone terminal device with which the user is informed about the setting of the type of connection of the telephone terminal device that is to be actuated next. By actuating the "OK" key, the selection mask 401 shown in Figure 1a is displayed on the display of the telephone terminal device, whereby a black bar  
10 can again be displaced up or down for selecting between the given options. When the user has selected "extension" as connection type and subsequently actuates the "OK" key of the telephone terminal device, the performance feature "automatic attenuation equalization" (ADA) is preferably activated and a change to a new message 402 on the display of the telephone terminal device ensues via which the user is informed of  
15 the input of the exchange code to be carried out next, i.e. the number to be dialed for external calls in order to access the exchange line. The user can thereby select whether he wishes to input this exchange code (AKZ) or not. When the user has actuated the key of the telephone terminal device corresponding to the "YES" field, an input mask 403 is displayed on the display of the telephone terminal device into  
20 which the user can input a three digit exchange code via the number keys of the telephone terminal device.

When, given the display of the selection mask 401, the user has selected the option "main line" (in this case, the feature "ADA" is deactivated) or has actuated the "OK" key given display of the input mask 403 or, respectively, has actuated  
25 the key corresponding to the option "NO" given display of the selection window 402, then a further selection option 500 is displayed on the display of the telephone terminal device, whereby the question is asked whether the user wishes to input a fee or payment factor that represents the basis for the calculation of charges for the calls conducted proceeding from the corresponding telephone terminal device. After  
30 actuation of the key allocated to the option "YES", a message 501 is displayed that informs the user about the input of the display format for the payment factor that is to

be actuated next. After actuation of the "OK" key, a new selection mask 502 is finally displayed, whereby the user can select the display format for the payment factor by moving the black bar shown in the display 502 up or down. The selection can in turn be confirmed by actuating the "OK" key, whereby an input mask 503 is subsequently displayed on the display of the telephone terminal device wherein the user can input the desired payment factor for the charge calculation with the number keys of the telephone terminal device. A currency input does not thereby ensue. When a payment factor was input, the payment display is automatically activated in the telephone terminal device.

The input mask 503 is in turn exited by actuating the "OK" key. It is assumed in the example shown in Figures 1a/1b that the installation, i.e. the setting of the operating parameters of the telephone terminal device, has ended, and a corresponding message 600 is displayed on the display of the telephone terminal device. For confirming the end of the installation event, a specific sound sequence or melody can also be optionally output via the loudspeaker of the telephone terminal device or a specific animation can be presented on the display.

Of course, the present invention is not limited to the setting possibilities shown in Figure 1a and Figure 1b; rather, additional or other operating parameters of the telephone terminal device can also be set, such as, for example, the ringing volume, the ringing sequence, etc., supported by the automatic input or software assistant. This is essentially dependent only on the control of the software of the telephone terminal device.

It can be seen from Figures 1a and 1b that the automatic input control sequences according to a pre-programmed and predetermined hierarchic system. By actuating a corresponding key of the telephone terminal device (soft key actuation), the display screen of the telephone terminal device changes and a new selection or input mask is displayed until the installation is over. These transitions are shown in Figure 1a and Figure 1b with the assistance of solid-line arrows. Additionally, however, there is also the possibility of returning from a display screen to a preceding or, respectively, hierarchically higher-ranking display screen in order, for example, to correct incorrect inputs. These returns are shown with broken-line arrows in Figures

1a and 1b and are produced by actuation of an ESC key (ESC hard key) of the telephone terminal device. For example, a return can be made from the display screen 500 to the display screen 400 in this way.

It has already been explained that the automatic setting procedure, i.e. the automatic software or, respectively, input assistant, is always activated when the telephone terminal device is connected to the power supply or, respectively, is resupplied with power after a power outage. Accordingly, the setting procedure and, thus, the input assistant is automatically exited when no input has been actuated for a longer time, for example 2 minutes. Settings that have already been actuated remain stored and are thus preserved. Over and above this, there is also the possibility of exiting the input procedure by picking up the receiver and in turn hanging up the receiver or, respectively, by correspondingly turning the loudspeaker of the telephone terminal device on and then off, which corresponds to an emergency reset.

As a rule, a telephone terminal device is already delivered with predetermined standard or default settings of the individual operating parameters. These default settings are preferably accepted by the input assistant in the presentation of a corresponding display screen and offered to the user for confirmation, so that no new input by the user may be required when the predetermined default settings are accepted. The same is also true of operating parameters that had already been set by the user earlier. When the user does not agree with these earlier settings of the operating parameters, a resetting or re-selection can be undertaken with a corresponding input via the keyboard of the telephone terminal device, as described above.

During the activation of the input assistant, i.e. during the running of the setting procedure presented in Figures 1a and 1b, it can occur that a call arrives at the corresponding telephone terminal device. In this case, a corresponding display screen is automatically displayed on the display of the telephone terminal device that informs the user that a call is waiting and indicates the possibility of accepting the call or, respectively, continuing with the setting procedure (for example, with soft keys "accept" and "continue"). When the user decides to accept the call, i.e. when the user actuates the corresponding accept key, the setting procedure and the automatic input



assistant is aborted and the user can accept the call. When, in contrast, the user has decided to continue the setting procedure, the display screen that informed the user of the waiting call is erased and a return is made to the preceding display screen.

Alternatively, it can be provided that incoming calls always be given priority, so that the setting procedure is automatically aborted upon arrival of a call in order to be able to accept the incoming call. Advantageously, the settings that have already been actuated remain stored in this case.

Figures 2a-2c show a setting procedure for an ISDN telephone terminal device corresponding to the setting procedure shown in Figures 1a/1b.

The display screens 100-403 shown in Figure 2a correspond to the display screens 100-403 shown in Figure 1a, so that the above explanations are referenced here.

In contrast to analog telephone terminal devices, however, there is the possibility given ISDN telephone terminal devices of allocating a plurality of telephone numbers to an ISDN terminal. After the display screens 401-403, a new selection mask 500 is therefore displayed, the user being asked via this whether the input of such multiple telephone numbers is desired. Upon actuation of the "YES" key, the user can subsequently input a total of three such multiple telephone numbers in corresponding input masks 501-503 with the number keys of the telephone terminal device. After actuation of the "OK" key when the input mask 503 is displayed or, respectively, after selection of the "NO" option when the selection mask 500 is displayed, the setting procedure for the payment factor that was already described on the basis of Figure 1b follows, so that the above explanations about the display screens 500-503 of Figure 1b can be referenced.

When, upon presentation of the display screen 600, the user has selected the "NO" option or, respectively, input the desired payment factor into the input mask 603 and subsequently actuated the "OK" key, a further selection mask 700 (see Figure 2c) is displayed on the display of the telephone terminal device, with whose assistance the user can activate or deactivate what is referred to as the CLIR performance feature (calling line identification restriction) of the ISDN telephone terminal device in order to thus suppress the transmission of the user's own telephone number to the other

party given activation of the CLIR performance feature. Upon actuation of the "YES" key, accordingly, the CLIR performance feature is activated, whereas, given actuation of the "NO" key, the setting procedure is immediately ended and the final message shown in Figure 2c is displayed on the display of the telephone terminal device. The

5 above comments about the display screen 600 shown in Figure 1b in turn apply to the display screen 800. Of course, the setting procedure shown in Figures 2a-2c is also not all-inclusive but only to be understood as being by way of example; additional or alternative operating parameters such as, for example the activation of a calling list or the activation of a call redirection, etc., can also be set.

**Patent Claims**

1. Method for commissioning a telecommunication terminal device,  
whereby operating parameters for a subsequent operation of the telecommunication  
terminal device can be set by an operator via input means (2-9, 13) at the  
5 telecommunication terminal device, characterized in that the setting of the operating  
parameters ensues assisted by an automatic input assistant that automatically guides  
the operator through the setting of the operating parameters.

2. Method according to claim 1, characterized in that values that have been  
already previously set for the operating parameters to be set are presented to the  
10 operator as standard values, said operator being able to accept the standard values by a  
corresponding actuation of the input means (2-9, 13) or, on the other hand, being able  
to erase them and reset the operating parameters.

3. Method according to claim 1 or 2, characterized in that the automatic  
input assistant prompts the operator to set the operating parameters with the assistance  
15 of input or selection masks that are presented on a display (1) of the  
telecommunication terminal device.

4. Method according to claim 3, characterized in that the input or selection  
masks of the automatic input assistant are presented on the display (1) of the  
telecommunication terminal device according to a predetermined hierarchic system,  
20 so that, dependent on the input or selection of the operator upon presentation of an  
input or selection mask, a specific, other input or selection mask is presented on the  
display (1) according to the hierarchic system.

5. Method according to claim 4, characterized in that the operator can  
recall a previously displayed input or selection mask on the basis of a corresponding  
25 input.

6. Telecommunication terminal device, comprising input means (2-9, 13)  
for an operator to set operating parameters of the telecommunication terminal device,  
characterized by control means (10, 15) for supporting the operator in the setting of  
the operating parameters with the assistance of an automatic input assistant in order to  
30 automatically guide the operator through the setting of the operating parameters.

7. Telecommunication terminal device according to claim 6, characterized in that the telecommunication terminal device comprises a display (1) for a presentation of input or selection masks controlled by the control means (10, 15), whereby the operator is prompted to set corresponding operating parameters by the input or selection masks.

8. Telecommunication terminal device according to claim 7, characterized in that the control means (10, 15) are fashioned such that they present the input or selection masks on the display (1) according to a predetermined hierarchic system, so that, given presentation of a specific input or selection mask and dependent on an input or selection of the operator via the input means (2-9), a new input or selection mask predetermined by the hierarchic system is presented on the display (1).

9. Telecommunication terminal device according to claim 7 or 8, characterized in that the control means (10, 15) are fashioned such that an input or selection mask that was already previously displayed is redisplayed on the display (1) by the control means (10, 15) as a result of a corresponding input of the operator via the input means (2-9).

10. Telecommunication terminal device according to one of the claims 7-9, characterized in that the control means (10, 15) are fashioned such that they recognize a waiting call for the telecommunication terminal device and present an input or selection mask on the display (1) in this case with whose assistance the operator can select the continuation of the setting of the operating parameters or, on the other hand, the acceptance of the call via the input means (2-9), whereby the control means (10, 15) produce the abort of the setting procedure and of the input assistant given an input of the operator corresponding to the call acceptance.

11. Telecommunication terminal device according to one of the claims 7-9, characterized in that the control means (10, 15) are fashioned such that they recognize a call waiting for the telecommunication terminal device and automatically produce the abort of the setting procedure and of the input assistant in this case in order to enable the acceptance of the call, whereby settings of operating parameters that have already been actuated by the operator remain stored.

12. Telecommunication terminal device according to one of the claims 7-11, characterized in that the control means (10-15) are fashioned such that, given presentation of an input or selection mask on the display (1) of the telecommunication terminal device, they display values for the corresponding operating parameters that were already previously set and offer these to the operator for acceptance.

13. Telecommunication terminal device according to one of the claims 6-12, characterized in that the input means (2-9, 13) comprise a keyboard (13) of the telecommunication terminal device.

14. Telecommunication terminal device according to one of the claims 6-13, characterized in that the control means (10, 15) are fashioned such that, following a power-free condition of the telecommunication terminal device, the recognize the connection or, respectively, reconnection of the telecommunication terminal device to a power supply and, in this case, start the automatic input assistant for setting the operating parameters.

15. Telecommunication terminal device according to claim 14, characterized in that the control means (10, 15) are fashioned such that, when the automatic input assistant is started, they present an input or selection mask on the display (1) of the telecommunication terminal device with whose assistance the operator can confirm the continuation of the setting of the operating parameters or, on the other hand, abort the setting of the operating parameters.

16. Telecommunication terminal device according to one of the claims 6-15, characterized in that the control means (10, 15) are fashioned such that the language of the input assistant, the current date and the current time of day, the type of connection of the telecommunication terminal device to a telecommunication network, the exchange code and/or a factor for the charge calculation can be set as operating parameters with the assistance of the automatic input assistant.

17. Telecommunication terminal device according to claim 16, characterized in that the telecommunication terminal device is a digital terminal device, whereby the control means (10, 15) are fashioned such that multiple telephone numbers of the telecommunication terminal device and/or the suppression of the



**Abstract****METHOD FOR COMMISSIONING A TELECOMMUNICATION TERMINAL  
DEVICE AND A CORRESPONDING TELECOMMUNICATION TERMINAL  
DEVICE**

- 5           Method for commissioning a telecommunication terminal device as well  
as a corresponding telecommunication terminal device, whereby a plurality of  
operating parameters of the telecommunication terminal device for commissioning  
can be set by an operator via the keyboard (2-9) of the telecommunication terminal  
device. The setting of the operating parameters is supported by an automatic input  
10   assistant that prompts the operator to set corresponding operating parameters in the  
form of a plurality of input or selection masks and thus guides the operator through  
the setting procedure.

Figures 1a, 1b

03/11/01 17:00:00

FIG 1A

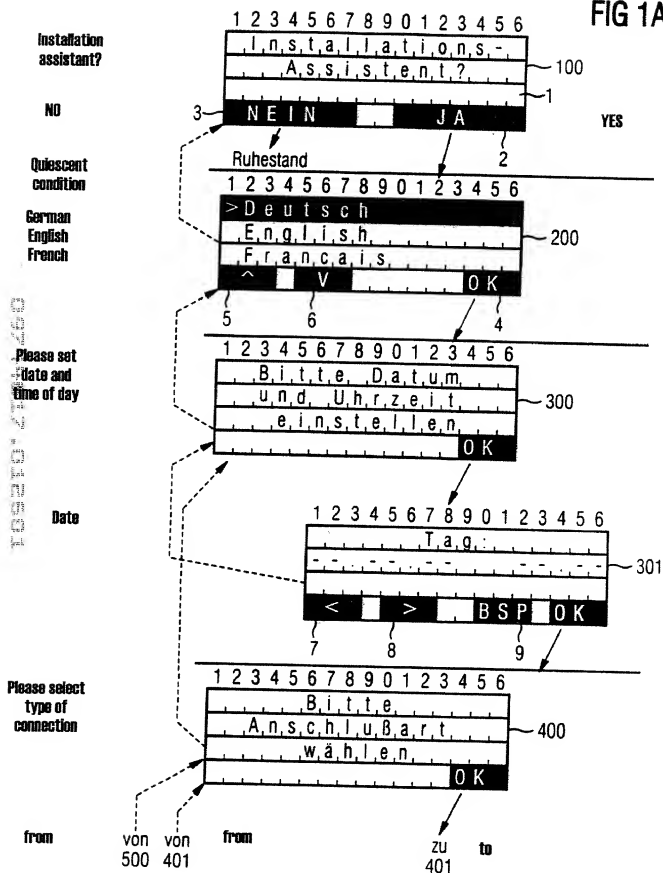
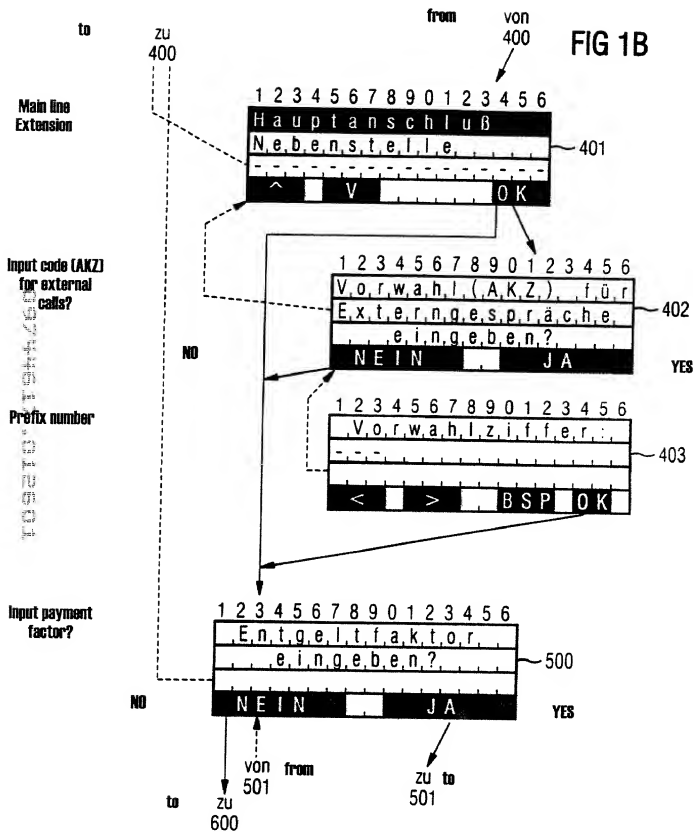




FIG 1B



from            von    zu            to  
                 500   500

### Payment factor

**Installation  
ended**

1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6

Bitte Anzeigeformat wählen OK

501

Figure 1 shows a 16-bit shift register 503. The register has 16 input/output pins numbered 1 to 16. The internal structure shows a sequence of cells: 'E', 'n', 't', 'g', 'e', 'l', 't', 'f', 'a', 'k', 't', 'o', 'r', followed by a series of dashes, and finally '<' and '>' symbols. The output is labeled 'OK'.

Diagram illustrating a grid structure with 6 rows and 12 columns. The grid contains the following text:

1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6

The text "international" is written across the first row, and "beendet" is written across the second row. A label "600" is positioned to the right of the grid.

FIG 2A

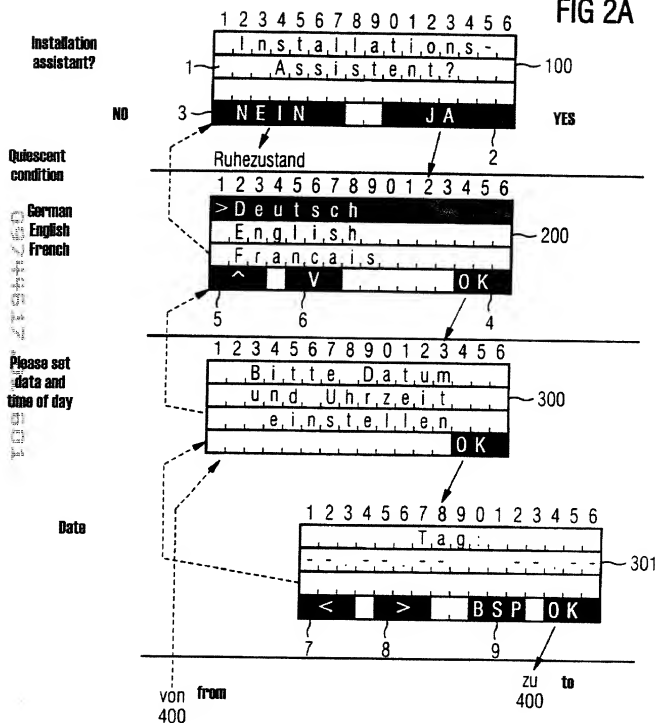
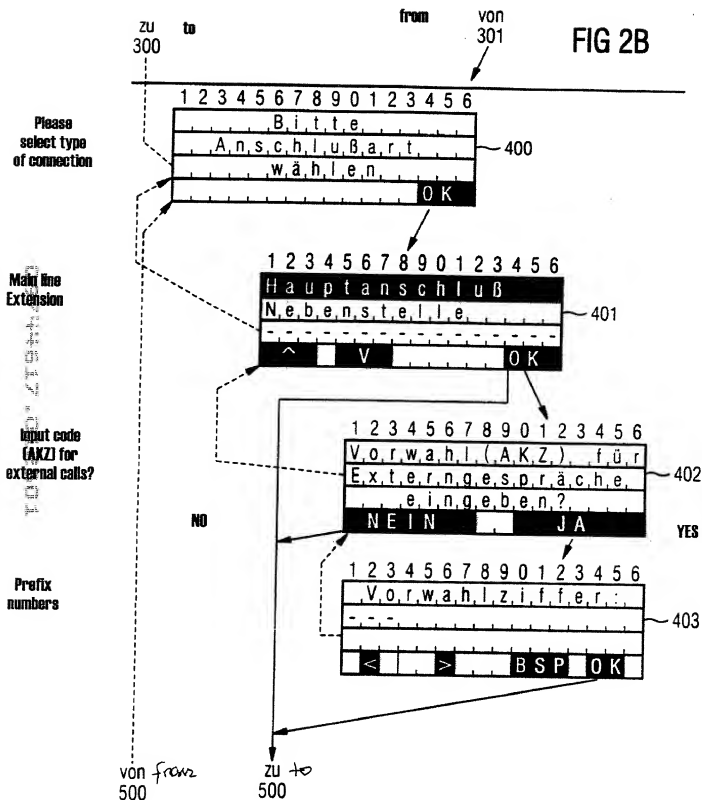
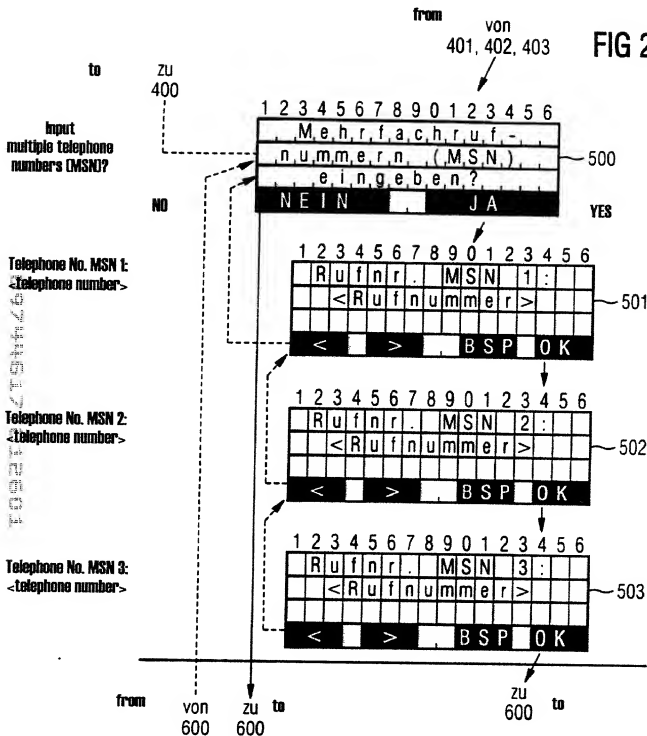


FIG 2B



6/8

FIG 2C



7/8

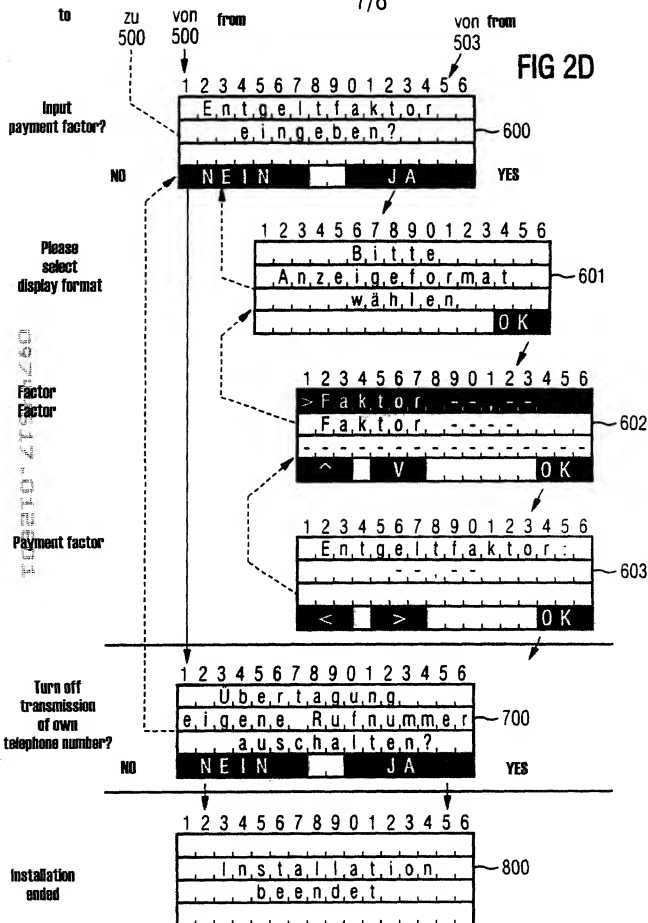
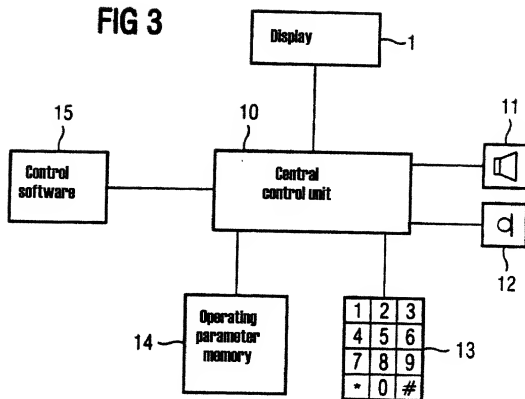


FIG 3



# Declaration and Power of Attorney For Patent Application

## Erklärung Für Patentanmeldungen Mit Vollmacht

### German Language Declaration

Als nachstehend benannter Erfinder erkläre ich hiermit an Eides Statt:

das mein Wohnsitz, meine Postanschrift, und meine Staatsangehörigkeit den im Nachstehenden nach meinem Namen aufgeführten Angaben entsprechen,

das ich, nach bestem Wissen der ursprüngliche, erste und alleinige Erfinder (falls nachstehend nur ein Name angegeben ist) oder ein ursprünglicher, erster und Miterfinder (falls nachstehend mehrere Namen aufgeführt sind) des Gegenstandes bin, für den dieser Antrag gestellt wird und für den ein Patent beantragt wird für die Erfindung mit dem Titel:

#### Verfahren zum Inbetriebsetzen eines Telekommunikation-Endgeräts und entsprechendes Telekommunikation-Endgerät

deren Beschreibung

(zutreffendes ankreuzen)

☒ hier beigefügt ist.

☐ am \_\_\_\_\_ als

PCT internationale Anmeldung

PCT Anmeldungsnummer \_\_\_\_\_

eingereicht wurde und am \_\_\_\_\_

abgeändert wurde (falls tatsächlich abgeändert).

Ich bestätige hiermit, dass ich den Inhalt der obigen Patentanmeldung einschliesslich der Ansprüche durchgesehen und verstanden habe, die eventuell durch einen Zusatzantrag wie oben erwähnt abgeändert wurde.

Ich erkenne meine Pflicht zur Offenbarung irgendwelcher Informationen, die für die Prüfung der vorliegenden Anmeldung in Einklang mit Absatz 37, Bundesgesetzbuch, Paragraph 1.56(a) von Wichtigkeit sind, an.

Ich beanspruche hiermit ausländische Prioritätsvorteile gemäss Abschnitt 35 der Zivilprozessordnung der Vereinigten Staaten, Paragraph 119 aller unten angegebenen Auslandsanmeldungen für ein Patent oder eine Erfindersurkunde, und habe auch alle Auslandsanmeldungen für ein Patent oder eine Erfindersurkunde nachstehend gekennzeichnet, die ein Anmeldedatum haben, das vor dem Anmeldedatum der Anmeldung liegt, für die Priorität beansprucht wird.

As a below named inventor, I hereby declare that:

My residence, post office address and citizenship are as stated below next to my name,

I believe I am the original, first and sole inventor (if only one name is listed below) or an original, first and joint inventor (if plural names are listed below) of the subject matter which is claimed and for which a patent is sought on the invention entitled

the specification of which

(check one)

☐ is attached hereto.

☐ was filed on \_\_\_\_\_ as

PCT international application

PCT Application No. \_\_\_\_\_

and was amended on \_\_\_\_\_ (if applicable)

I hereby state that I have reviewed and understand the contents of the above identified specification, including the claims as amended by any amendment referred to above.

I acknowledge the duty to disclose information which is material to the examination of this application in accordance with Title 37, Code of Federal Regulations, §1.56(a).

I hereby claim foreign priority benefits under Title 35, United States Code, §119 of any foreign application(s) for patent or inventor's certificate listed below and have also identified below any foreign application for patent or inventor's certificate having a filing date before that of the application on which priority is claimed:



# German Language Declaration

Prior foreign applications  
Priorität beansprucht

Priority Claimed

<u>198 34 722.7</u>	<u>Germany</u>	<u>31. Juli 1998</u>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
(Number)	(Country)	(Day Month Year Filed)	Yes	No
(Nummer)	(Land)	(Tag Monat Jahr eingereicht)	Ja	Nein

_____	_____	_____	<input type="checkbox"/>	<input type="checkbox"/>
(Number)	(Country)	(Day Month Year Filed)	Yes	No
(Nummer)	(Land)	(Tag Monat Jahr eingereicht)	Ja	Nein

_____	_____	_____	<input type="checkbox"/>	<input type="checkbox"/>
(Number)	(Country)	(Day Month Year Filed)	Yes	No
(Nummer)	(Land)	(Tag Monat Jahr eingereicht)	Ja	Nein

Ich beanspruche hiermit gemäss Absatz 35 der Zivilprozessordnung der Vereinigten Staaten, Paragraph 120, den Vorzug aller unten aufgeführten Anmeldungen und falls der Gegenstand aus jedem Anspruch dieser Anmeldung nicht in einer früheren amerikanischen Patentanmeldung laut dem ersten Paragraphen des Absatzes 35 der Zivilprozessordnung der Vereinigten Staaten, Paragraph 122 offenbart ist, erkenne ich gemäss Absatz 37, Bundesgesetzbuch, Paragraph 1.56(a) meine Pflicht zur Offenbarung von Informationen an, die zwischen dem Anmeldedatum der früheren Anmeldung und dem nationalen oder PCT internationalen Anmeldedatum dieser Anmeldung bekannt geworden sind.

I hereby claim the benefit under Title 35, United States Code, §120 of any United States application(s) listed below and, insofar as the subject matter of each of the claims of this application is not disclosed in the prior United States application in the manner provided by the first paragraph of Title 35, United States Code, §122, I acknowledge the duty to disclose material information as defined in Title 37, Code of Federal Regulations, §1.56(a) which occurred between the filing date of the prior application and the national or PCT international filing date of this application.

_____	_____	_____	_____
(Application Serial No.)	(Filing Date)	(Status)	(Status)
(Anmeldeseriennummer)	(Anmeldedatum)	(patentiert, anhängig, aufgegeben)	(patentiert, pending, abandoned)

_____	_____	_____	_____
(Application Serial No.)	(Filing Date)	(Status)	(Status)
(Anmeldeseriennummer)	(Anmeldedatum)	(patentiert, anhängig, aufgegeben)	(patentiert, pending, abandoned)

Ich erkläre hiermit, dass alle von mir in der vorliegenden Erklärung gemachten Angaben nach meinem besten Wissen und Gewissen der vollen Wahrheit entsprechen, und dass ich diese eidesstattliche Erklärung in Kenntnis dessen abgebe, dass wissentlich und vorsätzlich falsche Angaben gemäss Paragraph 1001, Absatz 18 der Zivilprozessordnung der Vereinigten Staaten von Amerika mit Geldstrafe belegt und/oder Gefängnis bestraft werden können, und dass derartig wissentlich und vorsätzlich falsche Angaben die Gültigkeit der vorliegenden Patentanmeldung oder eines darauf erteilten Patentbeschlusses gefährden können.

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true, and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

# German Language Declaration

VERTRETUNGSVOLLMACHT: Als benannter Erfinder beauftrage ich hiermit den nachstehend benannten Patentanwalt (oder die nachstehend benannten Patentanwälte) und/oder Patent-Agenten mit der Verfolgung der vorliegenden Patentanmeldung sowie mit der Abwicklung aller damit verbundenen Geschäfte vor dem Patent- und Warenzeichenamt: (Name und Registrationsnummer anführen)

POWER OF ATTORNEY: As a named inventor, I hereby appoint the following attorney(s) and/or agent(s) to prosecute this application and transact all business in the Patent and Trademark Office connected therewith. (list name and registration number)

Messrs. John D. Simpson (Registration No. 19,842) Lewis T. Steadman (17,074), William C. Stueber (16,453), P. Phillips Connor (19,259), Dennis A. Gross (24,410), Marvin Moody (16,549), Steven H. Noll (28,982), Brett A. Valiquet (27,841), Thomas I. Ross (29,275), Kevin W. Guynn (29,527), Edward A. Lehmann (22,312), James D. Hobart (24,149), Robert M. Barrett (30,142), James Van Santen (16,584), J. Arthur Gross (13,615), Richard J. Schwarz (13,472) and William A. Robinson (31,870), David R. Metzger (32,919), John R. Garrett (27,888) all members of the firm of Hill, Steadman & Simpson, A Professional Corporation.

And I hereby appoint

Telefongespräche bitte richten an.  
(Name und Telefonnummer)

Direct Telephone Calls to: (name and telephone number)

312/876-0200

Ext. \_\_\_\_\_

Postanschrift:

Send Correspondence to:

HILL, STEADMAN & SIMPSON  
A Professional Corporation  
85th Floor Sears Tower, Chicago, Illinois 60606

Voller Name des einzigen oder ursprünglichen Erfinders:		Full name of sole or first inventor:	
FLISCHER, Karl			
Unterschrift des Erfinders <i>Karl Fischer</i>	Datum 30.06.99	Inventor's signature	Date
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Staatsangehörigkeit Bundesrepublik Deutschland		Citizenship	
Postanschrift Oppenrieder Str. 7 D-81477 München Bundesrepublik Deutschland		Post Office Address	
Voller Name des zweiten Miterfinders (falls zutreffend):		Full name of second joint inventor, if any:	
MATTERN, Stefan			
Unterschrift des Erfinders <i>Stefan Mattern</i>	Datum 23.6.99	Second Inventor's signature	Date
Wohnsitz D-81539 München, Germany		Residence	
Staatsangehörigkeit Bundesrepublik Deutschland		Citizenship	
Postanschrift Schwanseest. 12 D-81539 München Bundesrepublik Deutschland		Post Office Address	

(Bitte entsprechende Informationen und Unterschriften im Falle von dritten und weiteren Miterfindern angeben).

(Supply similar information and signature for third and subsequent joint inventors).

**BOX PCT**  
**IN THE UNITED STATES DESIGNATED/ELECTED OFFICE**  
**OF THE UNITED STATES PATENT AND TRADEMARK OFFICE**  
**UNDER THE PATENT COOPERATION TREATY-CHAPTER II**

APPLICANT(S): KARL FLEISCHER ET AL.  
ATTORNEY DOCKET NO.: P00,1959  
INTERNATIONAL APPLICATION NO.: PCT/DE99/02075  
INTERNATIONAL FILING DATE: 05 JULY 1999  
INVENTION: METHOD FOR COMMISSIONING A TELECOMMUNICATION  
TERMINAL DEVICE AND A CORRESPONDING  
TELECOMMUNICATION TERMINAL DEVICE

Assistant Commissioner for Patents,  
Washington D.C. 20231


**APPOINTMENT OF ASSOCIATE POWER OF ATTORNEY**

Sir:

I am an attorney designated on the Power of Attorney for the above-referenced application. I hereby appoint Mark Bergner (Reg. No. 45,877) as an associate attorney, with full power of substitution and revocation, to prosecute this application and to transact all business in the Patent and Trademark Office connected therewith.

Submitted by,

20

 (Reg. No. 31,870)  
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